Station 4 8 S

JUN 23 2003

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 637210

2. To: (Receiving Organization)	3. From: (Originating Organization)	4. Related EDT No.:
Distribution	Flowsheet and Model Engineering	n/a
5. Proj./Prog./Dept./Div.:	6. Design Authority/Design Agent/Cog. Engr.:	7. Purchase Order No.:
RPP/ENG/Process Analysis	n/a	n/a
8. Originator Remarks:		9. Equip./Component No.:
This document is being released for retrievability purposes.		n/a
		10. System/Bldg./Facility:
		n/a
		12. Major Assm. Dwg. No.:
		n/a
11. Receiver Remarks:	11A. Design Baseline Document? ☐ Yes ☒ No	13. Permit/Permit Application No.:
n/a		n/a
		14. Required Response Date:
		n/a

15. DATA TRANSMITTED

(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Approval Designator	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	RPP-16989 CH2M-16882 MA 6-23-03	n/a	0	Evaluation of Environmental Simulation Program (ESP)	n/a	2	1	1

16. KEY

Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D OR N/A (See WHC-CM-3-5, Sec. 12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION
(See Approval Designator for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
		Design Authority				2	1	E.R. Hamm	E R Hamm	6/10/03	
		Design Agent									
2	1	Cog. Eng. M.R. Adams	M R Adams	06/17/03							
2	1	Cog. Mgr. N.W. Kirch	N W Kirch	6/23/2003							
		QA									
		Safety									
		Env.									

18.	19.	20.	21. DOE APPROVAL (if required)
M R Adams 06/17/03 Signature of EDT Originator — Date	n/a Authorized Representative for Receiving Organization — Date	N W Kirch 6-23-2003 Design Authority/ Cognizant Manager — Date	Ctrl No. _____ ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments

BD-7400-172-2 (10/97)

BD-7400-172-1

Evaluation of Environmental Simulation Program (ESP)

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Richland, WA 99352
U.S. Department of Energy Contract DE-AC27-99RL14047

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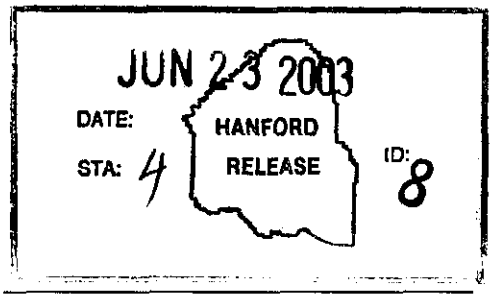
Key Words: Environmental Simulation Program, ESP, Sofware Quality

Abstract: This documents an evaluation of the ESP software against the requirements of TFC-BSM-IRM-HS-C-01



6/23/03
Release Approval Date

Release Stamp

Approved For Public Release

AJ
6-23-03

Evaluation of Environmental Simulation Program (ESP)

PER-2003-2067 was filed with a recommended corrective action of evaluating ESP against the requirements of TFC-BSM-IRM-HS-C-01, *Software Development, Implementation and Management*. ESP is a commercial off the shelf software package in use at the Hanford site for a number of years. TFC-BSM-IRM-HS-C-01 "legacy" software rules require the completion of the Software Quality Checklist and preparation of a Software Quality Assurance Plan (SQAP) if the software is found to be quality affecting. This evaluation included completing the Software Quality Checklist required by TFC-BSM-IRM-HS-C-01.

All of the questions on the Software Quality Checklist (SQC) were answered no. Two points need to be emphasized in response to the SQC.

1. CH2M HILL Hanford Group, Inc. (CHG) does not own the software. The software was purchased for site wide use and is used by other contractors and PNNL. The software is available on a share drive accessible by users on the Hanford Local Area Network (HLAN).
2. CHG use of the software is limited to two individuals who use the software as one of several tools in combining anion and cation data to ascertain compounds likely to occur in tank waste. The output resulting from use of the software is considered along with other data from several other sources including expert knowledge to formulate results documented in formally released peer reviewed special purpose reports.

Based on this assessment of ESP, an SQAP is not considered to be required for this software per TFC-BSM-IRM-HS-C-01. PER-2003-2067 can be closed.

06-23-03 ~~GH2M-16882, Rev. 0~~ RPP-16989, Rev 0

SOFTWARE QUALITY CHECKLIST

Use this form to determine if the software application requirements will effect any quality system.

1. If the answer to all questions is NO, this procedure does not apply. If the answer to any one question is YES, this procedure must be implemented. Quality Assurance requirements will apply to the software.
2. This form shall be retained and included with the software support documentation.

SOFTWARE: Environmental Simulation Program (ESP) **DATE:** 06/16/03

	QUESTION	NO	YES
1.	Is this software used to engineer, analyze or calculate facility equipment designs or configurations?	☒	☐
2.	Does this software determine operational limits, settings, status, or equipment configurations (i.e., flows, temperatures, positions, operational parameters) related to a facility authorization basis?	☒	☐
3.	Is this software used to monitor, collect, or acquire facility or equipment operational data, which is used to determine operational status, limits, settings, or configurations?	☒	☐
4.	Does this software perform special nuclear material (SNM), hazardous chemical, and/or waste inventory, tracking and/or accountability?	☒	☐
5.	Is this software used to determine SNM physical storage dimensions? (Criticality)	☒	☐
6.	Does this software determine or monitor personnel, facility, or environmental radiation exposure: release, radiation work limits, or dose rates?	☒	☐
7.	Does this software determine hazardous chemical exposure for personnel, facility, and/or the environment?	☒	☐
8.	Is this software used to perform laboratory analysis of facility and/or environmental samples?	☒	☐
9.	Is this software used to determine or select remedial actions for environmental cleanup of contaminated sites or facilities?	☒	☐
10.	Is this software used to evaluate present or future hazards from an implemented or proposed remedial action?	☒	☐
11.	Is this software used to measure or test facility/component conformance to an established requirement of a facility authorization basis?	☒	☐
12.	Does this software inventory, track or replace safety class, safety significant, or defense-in-depth spare parts?	☒	☐
13.	Is this software used to protect facilities from inside or outside threats (i.e., facility security, fire protection)?	☒	☐
14.	Does this software determine, display, or implement emergency actions?	☒	☐
15.	Is this software used to train personnel in facility or equipment operation such as simulators and/or automated training modules?	☒	☐
16.	Does this software assemble, compile, link, or develop code or programs whose results cannot be validated or verified as a complete product?	☒	☐
17.	Will more than ten people use this software?	☒	☐
18.	Will this software take more than 8 man-months to develop or cost greater than $50K to procure?	☒	☐
19.	Is this software used to support the implementation of DOE/RW-0333P, CAO-94-1012, or HASQARD?	☒	☐
20.	Will the software reside on and be accessed from the HLAN?	☒	☐
21.	Do multiple contractors/subcontractors use the software?	☒	☐
22.	Would the failure of the software have a legal or external milestone impact?	☒	☐
23.	Would a disruption of service for three (3) or more days result in incurring costs in excess of $100,000?	☒	☐
24.	Will the software/system contain business sensitive information?	☒	☐

Prepared By

M.R. Adams — Software Owner Print/Sign — 06/16/03 — Date

Approved By

N.W. Kirch — Immediate Manager Print/Sign — 6/23/2003 — Date